

Recovery Plan Action Status

Plan Name: Cheat Mountain Salamander

Plan Status: Final

Plan Date: 25-Jul-91

Lead Agency: USFWS

Lead Office: West Virginia Ecological Services Field Office

(304)

636-6586)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Cheat Mountain salamander (Plethodon nettingi)	1	1	Ensure that Federal actions do not adversely affect P. nettingi	Ongoing Current	Prior to FY 1995		U.S. Forest Service, Region 5, Fish and Wildlife Enhancement	Management: Land Use, Management: Planning	Internal Field Assistance, Internal Technical Assistance	This is a continual standard.
Cheat Mountain salamander (Plethodon nettingi)	2	10	Determine effects of habitat alterations	Ongoing Current	FY 2000 - FY 2004		U.S. Forest Service, West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Work type not yet selected	Labor type not yet selected	Buffer zone study has been completed. In 2009 studies were initiated to look at the effects of roads and trails as well as predation.
Cheat Mountain salamander (Plethodon nettingi)	2	11	Implement habitat improvements as appropriate	Ongoing Current	FY 2009		U.S. Forest Service, West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement	Management: Habitat Maintenance and Manipulation	Internal Field Assistance, Volunteer	Spruce restoration efforts are being undertaken by the MNF and CVNWR. Attempts to reconnect habitat connectivity between populations are underway. Timberline has initiated efforts to restore habitat near their ski slopes
Cheat Mountain salamander (Plethodon nettingi)	2	12	Determine reproductive biology	Ongoing Current	Prior to FY 1995		Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Research: Other Information	Labor type not yet selected	The species expert, Dr. Pauley, continues to study the reproductive biology of the CMS with several manuscripts nearing completion.

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Cheat Mountain salamander (Plethodon nettingi)	2	13	Identify phenotypic variability among populations	Ongoing Current	FY 2009		Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Research: Genetics	Contract, Graduate Student	In 2009, efforts were initiated to gather samples for genetic analysis.
Cheat Mountain salamander (Plethodon nettingi)	2	14	Develop a program to monitor habitat conditions and population status	Ongoing Not Current	Prior to FY 1995		U.S. Forest Service, West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement	Research: Habitat Status, Research: Population Surveys	Internal Administrative	Under Section 6, the WVDNR funds the species expert to conduct annual surveys at known sites. Additionally, there is long-term monitoring by virtue of a FS special use permit
Cheat Mountain salamander (Plethodon nettingi)	2	15	Establish a long-term management plan	Partially Complete	Prior to FY 1995		U.S. Forest Service, West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Management: Land Use, Management: Planning	Internal Technical Assistance, Species Expert	The MNF has a forest plan that is designed to protect CMS habitat within their boundaries. The CVNWR is also working on a CCP that will address CMS protection.
Cheat Mountain salamander (Plethodon nettingi)	3	16	Survey all known populations	Partially Complete	Prior to FY 1995		U.S. Forest Service, West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Research: Population Surveys	Labor type not yet selected	Insufficient staff and funds are available to monitor all known sites

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Cheat Mountain salamander (Plethodon nettingi)	3	17	Where feasible, place habitats on private lands under public ownerships, on a willing seller basis only	Ongoing Current	Prior to FY 1995		U.S. Forest Service, West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Acquisition, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Labor type not yet selected	The FWS works with landowners under section 10 and is also identifying high quality habitats that could be purchased by federal and state entities or placed under conservation easements
Cheat Mountain salamander (Plethodon nettingi)	3	18	Compare elevation disparity between northern and southern population	Ongoing Current	Prior to FY 1995		Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Research: Habitat Requirements	Internal Field Assistance	Dr Pauley has conducted some studies on this issue
Cheat Mountain salamander (Plethodon nettingi)	3	19	Determine food items	Ongoing Current	Prior to FY 1995		Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Research: Habitat Requirements	Internal Field Assistance, Internal Technical Assistance	Dr. Pauley has conducted some studies on
Cheat Mountain salamander (Plethodon nettingi)	2	2	Determine quality and extent of each populations	Ongoing Current	FY 2007		U.S. Forest Service, West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Research: Demographic Studies	Species Expert	Efforts have been initiated to revisit original sites and document quality and extent of habitat as well as population characteristics overtime
Cheat Mountain salamander (Plethodon nettingi)	3	20	Identify significance of interspecific competition	Ongoing Current	Prior to FY 1995		Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Research: Competition, Research: Demographic Studies, Research: Habitat Requirements, Research: Habitat Status, Research: Population Surveys	Internal Field Assistance, Internal Technical Assistance	

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Cheat Mountain salamander (Plethodon nettingi)	3	21	Conduct other ecological studies	Ongoing Current	Prior to FY 1995		Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Research	Internal Field Assistance, Internal Technical Assistance	
Cheat Mountain salamander (Plethodon nettingi)	3	22	Develop a training and awareness program for government agencies	Not Started	Prior to FY 1995		U.S. Forest Service, West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement	Work type not yet selected	Labor type not yet selected	
Cheat Mountain salamander (Plethodon nettingi)	3	23	Release educational information to the general public	Ongoing Current	Prior to FY 1995	FY 2006	U.S. Forest Service, West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement	Management: Land Use, Management: Planning	Internal Field Assistance, Internal Technical Assistance	
Cheat Mountain salamander (Plethodon nettingi)	2	3	Monitor ten benchmark populations on an annual basis	Ongoing Not Current	Prior to FY 1995		U.S. Forest Service, West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Research	Labor type not yet selected	Not enough Section 6 funding to do 10 populations annually however selected populations are revisited as funding is available
Cheat Mountain salamander (Plethodon nettingi)	2	4	Search for additional populations and determine range boundaries	Ongoing Current	Prior to FY 1995		U.S. Forest Service, West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Other: Regulations	Labor type not yet selected	Occurs by virtue of project clearance surveys (Section 7 and Section 10)

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Cheat Mountain salamander (Plethodon nettingi)	2	5	Delineate occupied habitats	Ongoing Current	Prior to FY 1995		U.S. Forest Service, West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement	Management: Land Use, Management: Planning, Other: Regulations	Labor type not yet selected	plus an additional 4000/yr over 2 more years
Cheat Mountain salamander (Plethodon nettingi)	2	6	Monitor threats to populations/habitat	Ongoing Current	Prior to FY 1995		U.S. Forest Service, West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement	Management: Land Use, Management: Planning, Other: Regulations	Labor type not yet selected	Plus an additional 300/yr over 7 more years
Cheat Mountain salamander (Plethodon nettingi)	2	7	Develop management guidelines and revise as necessary	Ongoing Current	Prior to FY 1995		U.S. Forest Service, West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement	Management: Land Use, Management: Planning, Other: Regulations	Labor type not yet selected	
Cheat Mountain salamander (Plethodon nettingi)	2	8	Develop cooperative agreements with private landowners	Ongoing Current	FY 2000 - FY 2004		West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Management: Land Use, Management: Planning, Other: Regulations	Internal Field Assistance, Internal Technical Assistance	
Cheat Mountain salamander (Plethodon nettingi)	2	9	Ascertain variables associated with quality habitats	Ongoing Current	Prior to FY 1995		West Virginia Department of Natural Resources, Region 5, Fish and Wildlife Enhancement, Private organizations and institutions, eg, Marshall University, The Nature Conservancy	Research: Habitat Requirements	Labor type not yet selected	